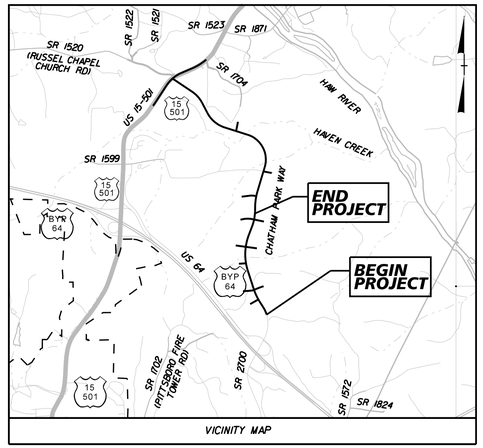
TIP PROJECT: R-5930A



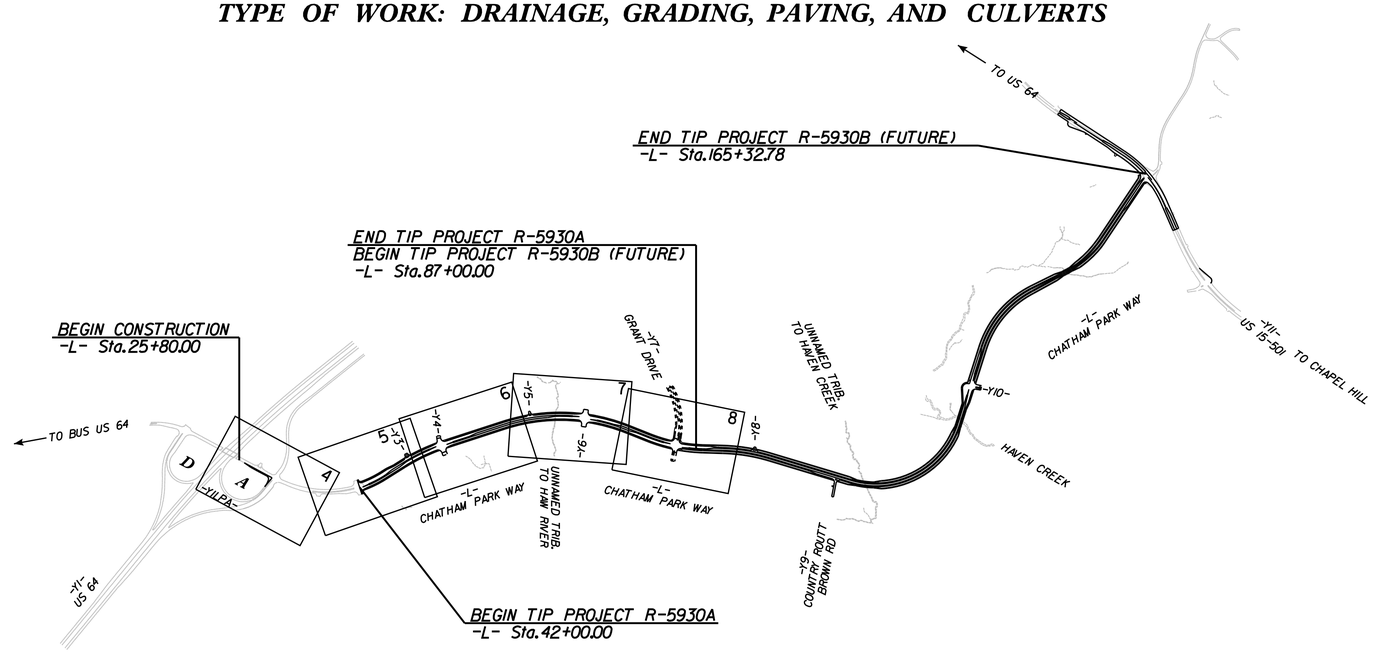
STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

PLAN FOR PROPOSED
HIGHWAY EROSION CONTROL

CHATHAM COUNTY

LOCATION: CHATHAM PARK WAY FROM NORTH OF US 64 TO NORTH OF FUTURE GRANT DRIVE

TYPE OF WORK: DRAINAGE, GRADING, PAVING, AND CULVERTS



★ *TRAFFIC SIGNAL*

THIS IS A LIMITED CONTROLLED ACCESS PROJECT WITH ACCESS LIMITED TO POINTS AS SHOWN ON THE PLANS
CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD III
THIS PROJECT IS NOT WITHIN ANY MUNICIPAL BOUNDARIES

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	R-5930A	EC-1	

STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION
48548.1.2		PE
48548.2.1		RW
48548.2.2		UTL
48548.3.2		CONST.

EROSION AND SEDIMENT CONTROL MEASURES

Std. #	Description	Symbol
1630.03	Temporary Silt Ditch	TSD
1630.05	Temporary Diversion	TD
1605.01	Temporary Silt Fence	
1606.01	Special Sediment Control Fence	
1622.01	Temporary Berms and Slope Drains	
1630.02	Silt Basin Type B	
1633.01	Temporary Rock Silt Check Type-A	
	Temporary Rock Silt Check Type-A with Matting and Polyacrylamide (PAM)	
1633.02	Temporary Rock Silt Check Type-B	
	Wattle / Coir Fiber Wattle	EW CFW
	Wattle / Coir Fiber Wattle with Polyacrylamide (PAM)	
1634.01	Temporary Rock Sediment Dam Type-A	
1634.02	Temporary Rock Sediment Dam Type-B	
1635.01	Rock Pipe Inlet Sediment Trap Type-A	
1635.02	Rock Pipe Inlet Sediment Trap Type-B	
1630.04	Stilling Basin	
1630.06	Special Stilling Basin	
	Rock Inlet Sediment Trap:	
1632.01	Type A	A
1632.02	Type B	B
1632.03	Type C	C
	Skimmer Basin	
	Tiered Skimmer Basin	
	Infiltration Basin	

THIS PROJECT CONTAINS EROSION CONTROL PLANS FOR CLEARING AND GRUBBING PHASE OF CONSTRUCTION.

THIS PROJECT HAS BEEN DESIGNED TO SENSITIVE WATERSHED STANDARDS.

ENVIRONMENTALLY SENSITIVE AREA(S) EXIST ON THIS PROJECT

Refer To E. C. Special Provisions for Special Considerations.

GRAPHIC SCALE

50 25 0 50 100
PLANS

THESE EROSION AND SEDIMENT CONTROL PLANS COMPLY WITH THE APPLICABLE REGULATIONS SET FORTH BY THE NCG-010000 GENERAL CONSTRUCTION PERMIT EFFECTIVE APRIL 1, 2019 AND ISSUED BY THE NORTH CAROLINA DEPARTMENT OF ENVIRONMENTAL QUALITY DIVISION OF WATER RESOURCES.

Kimley»Horn ©2023

Prepared in the Office of:

Kimley-Horn

421 Fayetteville Street, Suite 600
Raleigh, NC 27601

Designed by:

DAVID HURSEY ***4359***

NAME *LEVEL III CERTIFICATION NO.*

Roadway Standard Drawings

The following roadway english standards as appear in "Roadway Standard Drawings"– Roadway Design Unit – N. C. Department of Transportation – Raleigh, N. C., dated January 2018 and the latest revison thereto are applicable to this project and by reference hereby are considered a part of these plans.

1604.01	Railroad Erosion Control Detail	1632.01	Rock Inlet Sediment Trap Type A
1605.01	Temporary Silt Fence	1632.02	Rock Inlet Sediment Trap Type B
1606.01	Special Sediment Control Fence	1632.03	Rock Inlet Sediment Trap Type C
1607.01	Gravel Construction Entrance	1633.01	Temporary Rock Silt Check Type A
1622.01	Temporary Berms and Slope Drains	1633.02	Temporary Rock Silt Check Type B
1630.01	Riser Basin	1634.01	Temporary Rock Sediment Dam Type A
1630.02	Silt Basin Type B	1634.02	Temporary Rock Sediment Dam Type B
1630.03	Temporary Silt Ditch	1635.01	Rock Pipe Inlet Sediment Trap Type A
1630.04	Stilling Basin	1635.02	Rock Pipe Inlet Sediment Trap Type B
1630.05	Temporary Diversion	1640.01	Coir Fiber Baffle
1630.06	Special Stilling Basin	1645.01	Temporary Stream Crossing
1631.01	Matting Installation		

5/14/99

PROJECT REFERENCE NO.	SHEET NO.
R-5930A	EC-2

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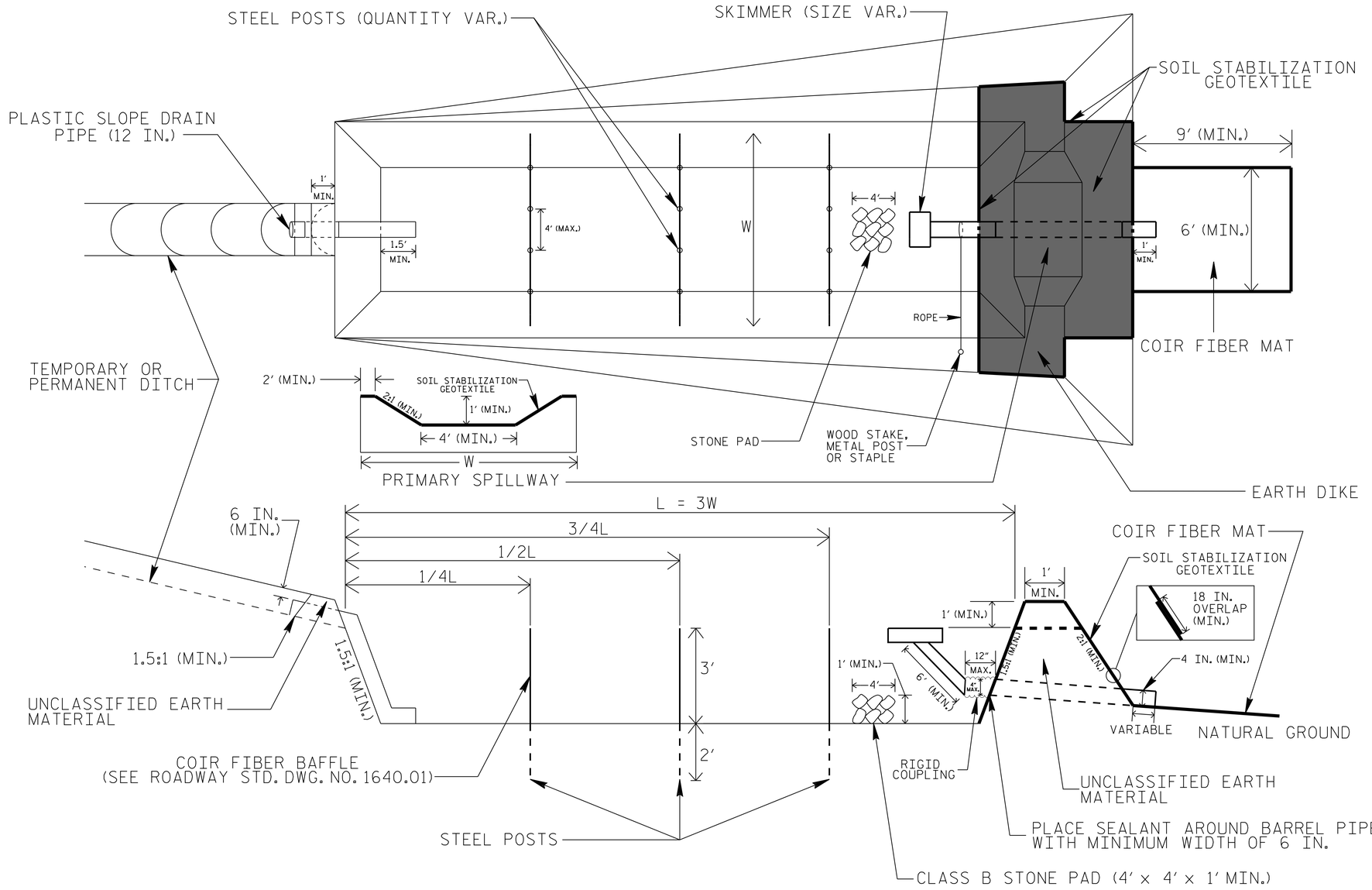
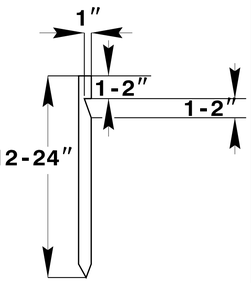
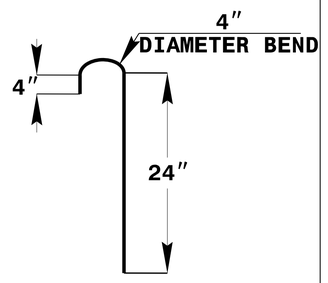
SKIMMER BASIN WITH BAFFLES DETAIL



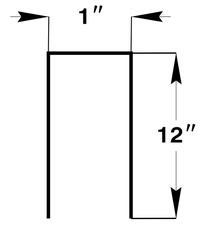
2" x 2" (nominal) WOODEN STAKE



#10 STEEL REINFORCEMENT BAR



1" (nominal) STAPLE



COIR FIBER MAT ANCHOR OPTIONS

NOTES

1. SEED AND PLACE MATTING FOR EROSION CONTROL ON INTERIOR AND EXTERIOR SIDESLOPES.
2. LIMIT EARTH DIKE HEIGHT TO 5 FT.
3. FOR BASIN DEPTH OF 3 FT., THE MINIMUM BASIN WIDTH SHALL BE 9 FT.
4. DETERMINE PRIMARY SPILLWAY WEIR LENGTH (FT.) USING Q/0.8, WHERE Q IS FLOW RATE (CFS) INTO BASIN.
5. PLASTIC SLOPE DRAIN PIPE AT INLET OF BASIN MAY BE REPLACED BY FILTRATION GEOTEXTILE OR TARP AS DIRECTED.
6. SOIL STABILIZATION GEOTEXTILE FOR PRIMARY SPILLWAY SHALL BE ONE CONTINUOUS PIECE OF MATERIAL OR OVERLAPPED 18 IN. (MIN.).

NOT TO SCALE

5/12/2023

5/14/99

PROJECT REFERENCE NO.	SHEET NO.
R-5930A	EC-2A

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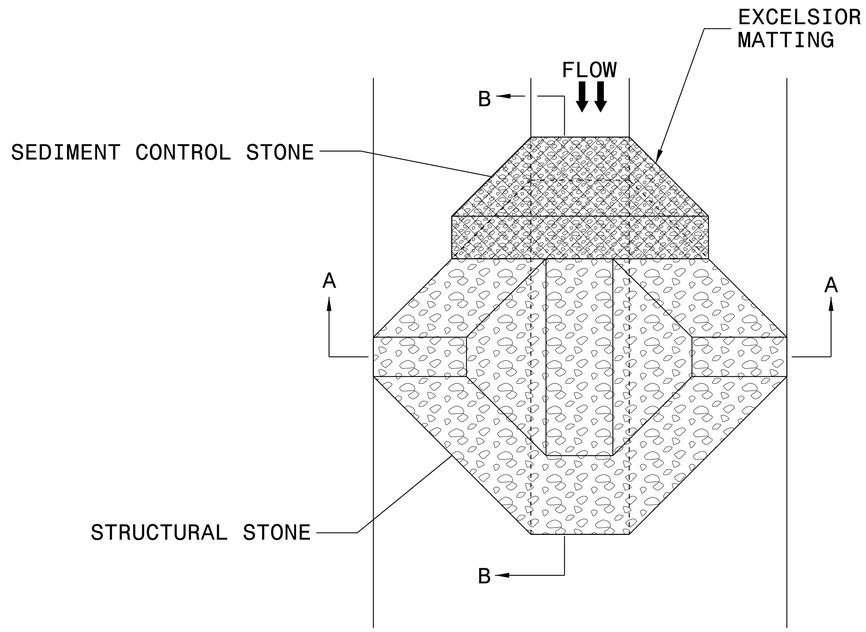
TEMPORARY ROCK SILT CHECK TYPE 'A' WITH EXCELSIOR MATTING AND POLYACRYLAMIDE (PAM)



PLAN

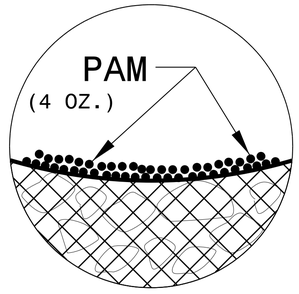
NOTES:

INSTALL TEMPORARY ROCK SILT CHECK TYPE A IN ACCORDANCE WITH ROADWAY STANDARD DRAWING NO. 1633.01.

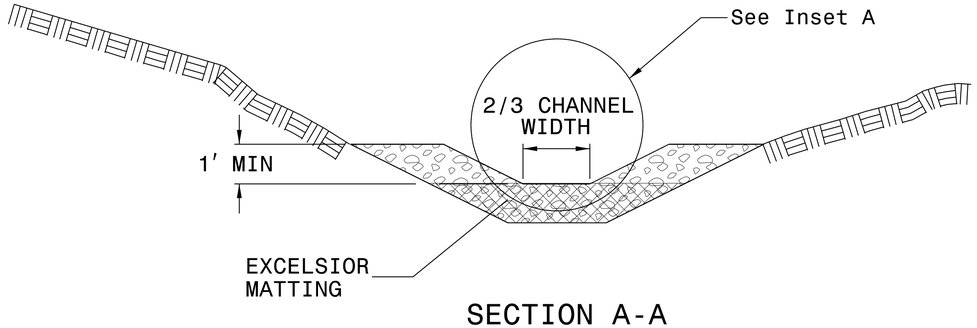
USE EXCELSIOR FOR MATTING MATERIAL AND ANCHOR MATTING SECTION AT TOP AND BOTTOM WITH CLASS B STONE.

PRIOR TO POLYACRYLAMIDE (PAM) APPLICATION, OBTAIN A SOIL SAMPLE FROM PROJECT LOCATION, AND FROM OFFSITE MATERIAL, AND ANALYZE FOR APPROPRIATE PAM FLOCCULANT TO BE APPLIED TO EACH ROCK SILT CHECK.

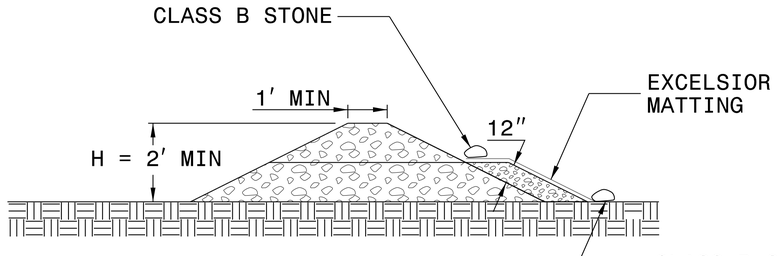
INITIALLY APPLY 4 OUNCES OF POLYACRYLAMIDE (PAM) TO TOP OF MATTING SECTION AND AFTER EVERY RAINFALL EVENT THAT EQUALS OR EXCEEDS 0.50 INCHES.



INSET A



SECTION A-A



SECTION B-B

NOT TO SCALE

5/12/2023

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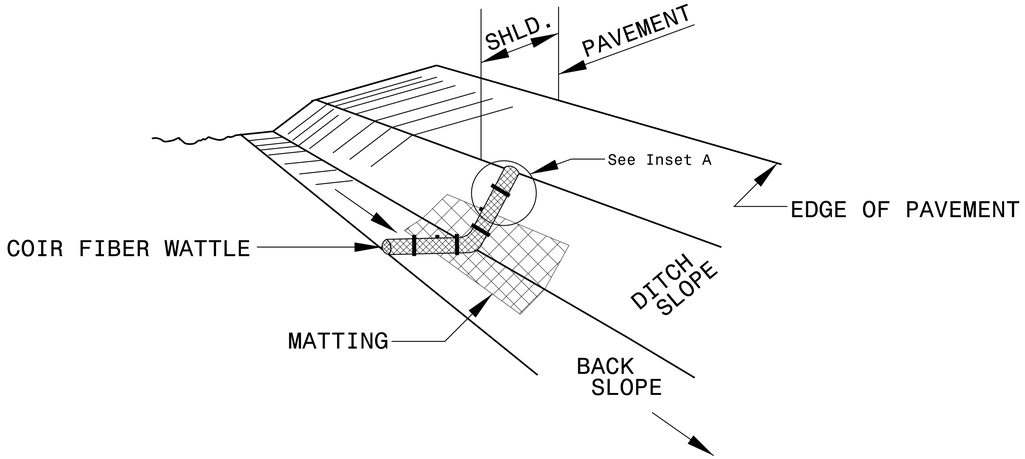
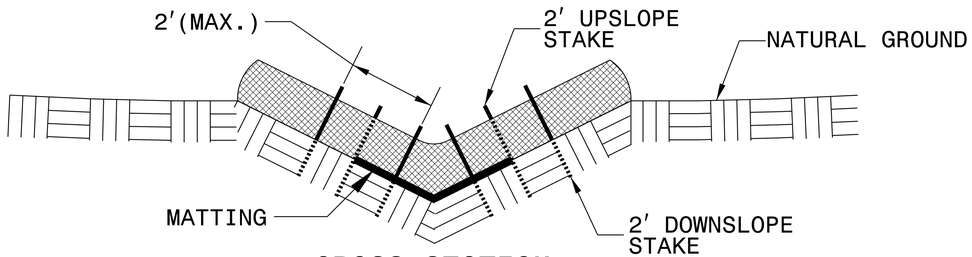
PROJECT REFERENCE NO.	SHEET NO.
R-5930A	EC-2B

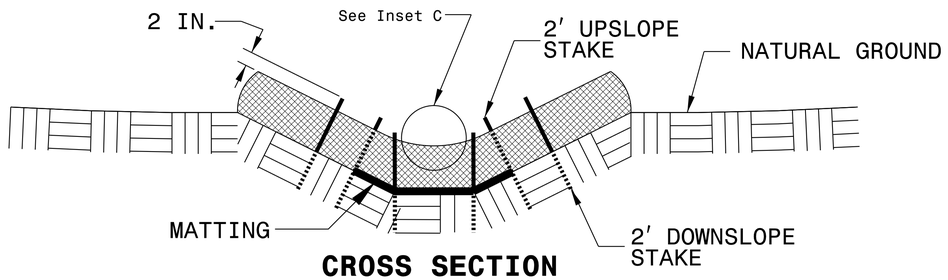
COIR FIBER WATTLE WITH POLYACRYLAMIDE (PAM) DETAIL



ISOMETRIC VIEW



CROSS SECTION VEE DITCH



CROSS SECTION TRAPEZOIDAL DITCH

NOTES:

USE MINIMUM 12 IN. DIAMETER COIR FIBER (COCONUT FIBER) WATTLE.

USE 2 FT. WOODEN STAKES WITH A 2 IN. BY 2 IN. NOMINAL CROSS SECTION.

ONLY INSTALL WATTLE(S) TO A HEIGHT IN DITCH SO FLOW WILL NOT WASH AROUND WATTLE AND SCOUR DITCH SLOPES AND AS DIRECTED.

INSTALL A MINIMUM OF 2 UPSLOPE STAKES AND 4 DOWNSLOPE STAKES AT AN ANGLE TO WEDGE WATTLE TO BOTTOM OF DITCH.

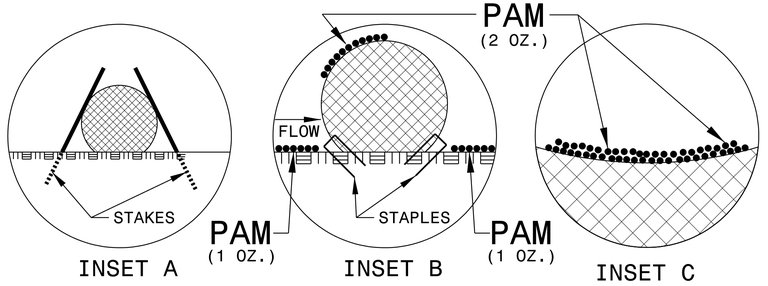
PROVIDE STAPLES MADE OF 0.125 IN. DIAMETER STEEL WIRE FORMED INTO A U SHAPE NOT LESS THAN 12″ IN LENGTH.

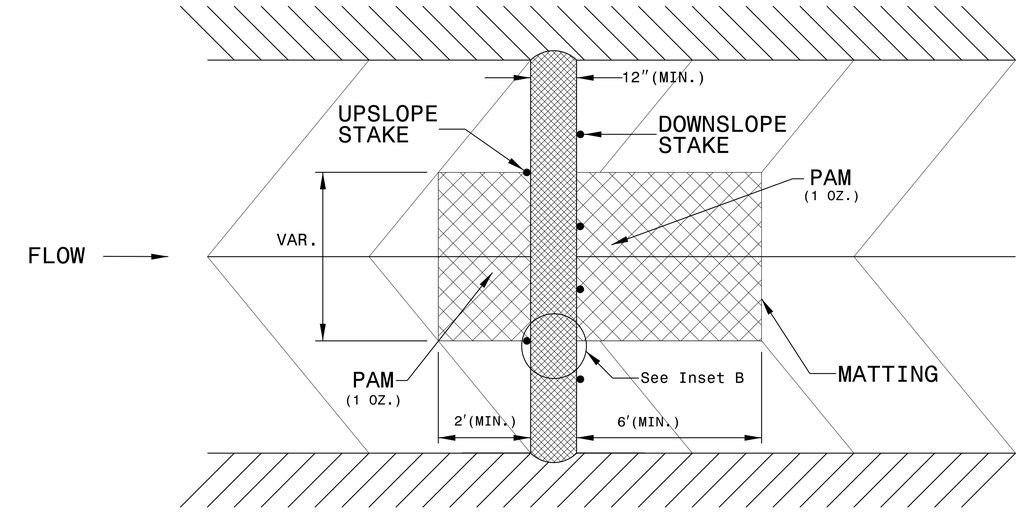
INSTALL STAPLES APPROXIMATELY EVERY 1 LINEAR FOOT ON BOTH SIDES OF WATTLE AND AT EACH END TO SECURE IT TO THE SOIL.

INSTALL MATTING IN ACCORDANCE WITH SECTION 1631 OF THE STANDARD SPECIFICATIONS.

PRIOR TO POLYACRYLAMIDE (PAM) APPLICATION, OBTAIN A SOIL SAMPLE FROM PROJECT LOCATION, AND FROM OFFSITE MATERIAL, AND ANALYZE FOR APPROPRIATE PAM FLOCCULANT TO BE APPLIED TO EACH WATTLE.

INITIALLY APPLY 2 OUNCES OF ANIONIC OR NEUTRALLY CHARGED PAM OVER WATTLE WHERE WATER WILL FLOW AND 1 OUNCE OF PAM ON MATTING ON EACH SIDE OF WATTLE. REAPPLY PAM AFTER EVERY RAINFALL EVENT THAT IS EQUAL TO OR EXCEEDS 0.50 IN.





TOP VIEW

TIERED SKIMMER BASIN DETAIL

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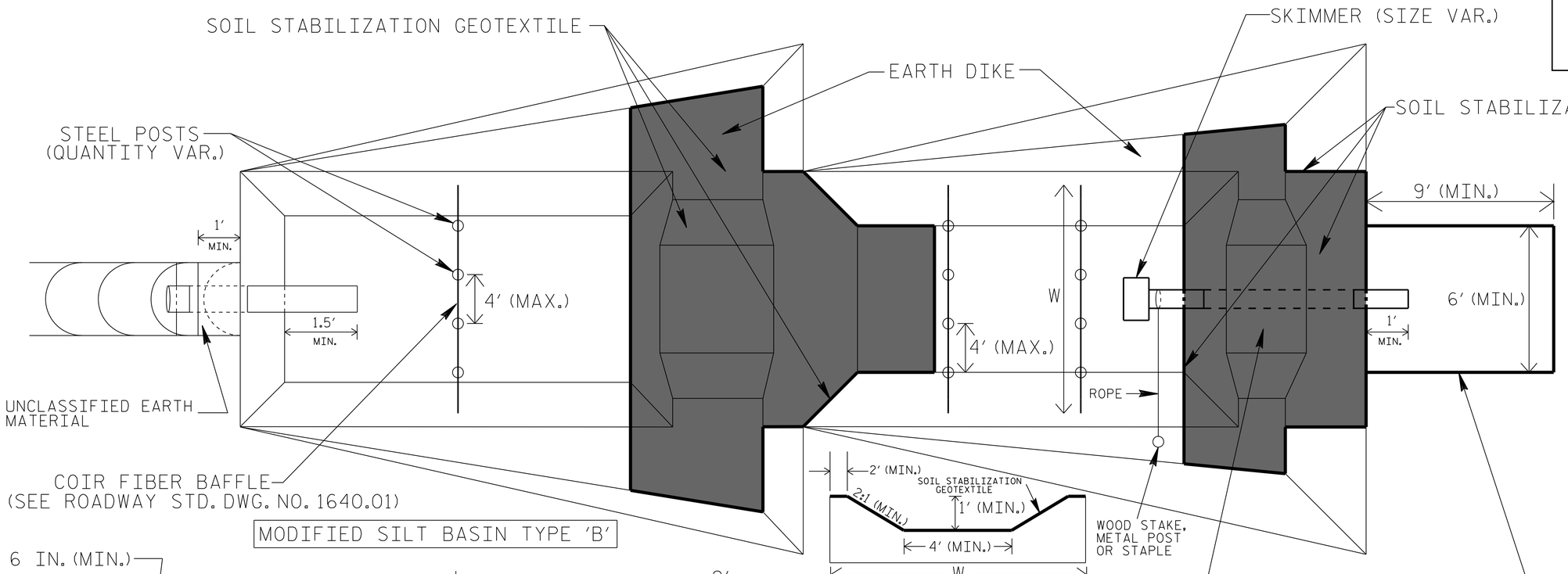
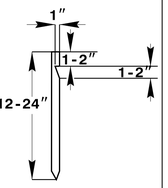
PROJECT REFERENCE NO.	SHEET NO.
R-5930A	EC-2C
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

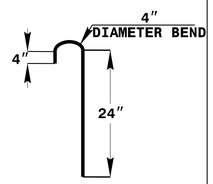


MODIFIED SILT BASIN TYPE 'B'

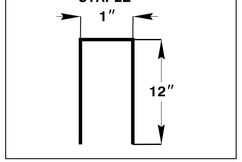
2" x 2" (nominal) WOODEN STAKE



#10 STEEL REINFORCEMENT BAR



1" (nominal) STAPLE



COIR FIBER MAT ANCHOR OPTIONS

NOTES

1. SEED AND PLACE MATTING FOR EROSION CONTROL ON INTERIOR AND EXTERIOR SIDESLOPES OF BASINS.
2. LIMIT HEIGHT OF EARTH DIKES TO 5 FT.
3. ADDITIONAL MODIFIED SILT BASINS TYPE 'B' MAY BE NEEDED DEPENDING ON SLOPE.
4. FOR BASIN DEPTHS OF 3FT., THE MINIMUM BASIN WIDTHS SHALL BE 9 FT.
5. DETERMINE PRIMARY SPILLWAY WEIR LENGTHS (FT.) USING Q/0.8, WHERE Q IS FLOW RATE (CFS) INTO UPPER BASIN.
6. SOIL STABILIZATION GEOTEXTILE FOR PRIMARY SPILLWAYS SHALL BE ONE CONTINUOUS PIECE OF MATERIAL OR OVERLAPPED 18 IN. (MIN.).

NOT TO SCALE

5/14/99

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

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PROJECT REFERENCE NO.	SHEET NO.
R-5930A	EC-3

SOIL STABILIZATION SUMMARY SHEET

MATTING FOR EROSION CONTROL

CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SY)
DITCHES					
5	-L-	42+70	44+50	LT	100
5	-L-	44+50	47+70	LT	175
5	-L-	47+70	48+90	LT	65
6	-L-	52+50	53+15	LT	40
6	-L-	55+00	56+00	LT	140
			DITCHES SUBTOTAL		520

MATTING FOR EROSION CONTROL

CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SY)
SLOPES					
5	-L-	42+50	43+00	LT	70
5	-L-	43+00	44+50	RT	1,350
5	-L-	49+00	49+50	RT	230
5/6	-L-	43+50	54+00	LT	6,500
6	-L-	56+00	57+00	RT	550
7	-L-	68+00	71+50	LT	1,760
7	-L-	71+50	77+00	LT	1,800
7	-L-	67+50	69+50	RT	2,320
7	-L-	69+50	71+00	RT	150
7	-L-	72+50	76+00	RT	1,720
8	-L-	79+00	80+00	LT	90
8	-L-	85+00	85+50	LT	60
8	-L-	86+00	88+50	LT	200
8	-L-	79+00	79+50	RT	170
			SLOPES SUBTOTAL		16,970
			MATTING TO BE INSTALLED ON DITCHES		520
			MATTING TO BE INSTALLED ON SLOPES		16,970
MISCELLANEOUS MATTING TO BE INSTALLED AS DIRECTED BY THE ENGINEER					42,710
				TOTAL	60,200
				SAY	60,500

5/12/2023

5/14/99

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PROJECT REFERENCE NO.	SHEET NO.
R-5930A	EC-3A

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

SOIL STABILIZATION TIMEFRAMES

SITE DESCRIPTION	STABILIZATION TIME	TIMEFRAME EXCEPTIONS
PERIMETER DIKES, SWALES, DITCHES AND SLOPES	7 DAYS	NONE
HIGH QUALITY WATER (HQW) ZONES	7 DAYS	NONE
SLOPES STEEPER THAN 3:1	7 DAYS	IF SLOPES ARE 10' OR LESS IN LENGTH AND ARE NOT STEEPER THAN 2:1, 14 DAYS ARE ALLOWED.
SLOPES 3:1 OR FLATTER	14 DAYS	7 DAYS FOR SLOPES GREATER THAN 50' IN LENGTH.
ALL OTHER AREAS WITH SLOPES FLATTER THAN 4:1	14 DAYS	NONE, EXCEPT FOR PERIMETERS AND HQW ZONES.

5/12/2023

NOTE:
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B AND TEMPORARY ROCK SILT CHECKS TYPE - A AT DRAINAGE OUTLETS.

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 4

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RALEIGH, NC 27601

RIGHT-OF-WAY REV.
CONST. REV.

PROJECT REFERENCE NO.	SHEET NO.
R-5930A	EC-4/CONST.4
R-5930 R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

REVISIONS

5/14/99

NOTE:
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE – B AND TEMPORARY ROCK SILT CHECKS TYPE – A AT DRAINAGE OUTLETS.

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 5

NAD 83 /NA 2011

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RALEIGH, NC 27601

RIGHT-OF-WAY REV.

CONST. REV.

PROJECT REFERENCE NO.	SHEET NO.
R-5930A	EC-5/CONST.5
R-5930 R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

REVISIONS

5/14/99

MATCHLINE -L- STA 37+00 (SEE SHEET 4)

MATCHLINE -L- STA 50+50 (SEE SHEET 6)

BEGIN TIP PROJECT R-5930A
-L- Sta.42+00.00

END CONSTRUCTION
-Y2- POC Sta.17+83.50

BEGIN CONSTRUCTION
-Y2- POC Sta.15+94.93

BEGIN CONSTRUCTION
-Y3- POT Sta.13+10.00

46 x 92 x 3
2 inch Skimmer
with 1.75 inch
Orifice Diameter
16 ft. weir
ID 5.1

26 x 52 x 3
1.5 inch Skimmer
with 1.000 inch
Orifice Diameter
5 ft. weir
ID 5.2

CLASS 'B' RIP RAP
EST. 3 TONS
EST. 10 SY GFD

STANDARD 'V' DITCH
SEE DETAIL 5/SHEET 2D-2
S= 1.09%
EST 20 CY DDE

CLASS 'B' RIP RAP
EST. 3 TONS
EST. 10 SY GFD

BERM 'V' DITCH
SEE DETAIL 2/SHEET 2D-1

SPECIAL CUT DITCH
SEE DETAIL 7/SHEET 2D-1

15" RCP-V

18" HDPE W/ELBOWS

18" RCP-V

18" RCP-IV

15" RCP-IV

JB W/MH

RETAIN

REMOVE

TBDI

15+00

20+00

40+00

45+00

50+00

NOTE:
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE – B AND TEMPORARY ROCK SILT CHECKS TYPE – A AT DRAINAGE OUTLETS.

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 6

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RALEIGH, NC 27601

RIGHT-OF-WAY REV.

CONST. REV.

PROJECT REFERENCE NO.	SHEET NO.
R-5930A	EC-6/CONST.6
R-5930 RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

REVISIONS

5/14/99

NAD 83 /NA 2011

10+00

60+00

55+00

BEGIN CONSTRUCTION
-Y4- POC Sta. 13+73.00

END CONSTRUCTION
-Y4- POC Sta. 15+67.00

MATCHLINE -L- STA 50+50 (SEE SHEET 5)

MATCHLINE -L- STA 64+00 (SEE SHEET 7)

SPECIAL CUT DITCH
SEE DETAIL 7/SHEET 2D-1

BERM 'V' DITCH
SEE DETAIL 2/SHEET 2D-1

15" HDPE
W/ELBOWS

18" RCP-V

SPECIAL LATERAL
2FT BASE DITCH
SEE DETAIL 8/SHEET 2D-1
CLASS 'B' RIP RAP
EST. 160 TONS
EST. 350 SY GFD

+31
60' LT
95' LT

FALSE SUMP
SEE DETAIL 32
SHEET 2D-2

+52
60' LT
95' LT

+00
60' LT

32 x 64 x 3
1.5 inch Skimmer
with 1.250 inch
Orifice Diameter
8 ft. weir
ID 6.2

62 x 31 x 3
1.5 inch Skimmer
with 1.250 inch
Orifice Diameter
7 ft. weir
ID 6.1

CLASS 'B' RIP RAP
EST. 3 TONS
EST. 10 SY GFD

WOODS

NOTE:
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE – B AND TEMPORARY ROCK SILT CHECKS TYPE – A AT DRAINAGE OUTLETS.

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 7

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RALEIGH, NC 27601

RIGHT–OF–WAY REV.

CONST. REV.

PROJECT REFERENCE NO.	SHEET NO.
R–5930A	EC–7/CONST.7
R–5930 R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

NAD 83 /NA 2011

REVISIONS
5/14/99

36 x 18 x 3
1.5 inch Skimmer
with 0.625 inch
Orifice Diameter
4 ft. weir
ID 7.2

INLET PROTECTION
EST. 14 TONS CLASS II RIP RAP
EST. 14 SY GFD
SEE DETAIL 25SHEET 2D–2

–L– Sta.68+70
7'x7' RCBC (1.0' BURIED)
(WxH)

BEGIN CONSTRUCTION
–Y5– POT Sta. 12+05.00

–L– Sta.67+92
12'x12' RCBC
(WxH)

LATERAL 'V' DITCH
SEE DETAIL 9SHEET 2D–1
CLASS 'I' RIP RAP
EST. 102 TONS
EST. 195 SY GFD

–L– Sta.70+00
12'x12' RCBC
(WxH)

CLASS 'B' RIP RAP
EST. 2 TONS
EST. 7 SY GFD

15" HDPE
W/ELBOWS

BEGIN CONSTRUCTION
–Y6– POT Sta. 13+21.00

70+00

75+00

15+00

MATCHLINE –L– STA 64+00 (SEE SHEET 6)

MATCHLINE –L– STA 77+50 (SEE SHEET 8)

46 x 23 x 3
1.5 inch Skimmer
with 0.875 inch
Orifice Diameter
4 ft. weir
ID 7.1

OUTLET PROTECTION
EST. 14 TONS CLASS II RIP RAP
EST. 14 SY GFD
SEE DETAIL 26SHEET 2D–2

LATERAL 4FT BASE DITCH
SEE DETAIL 3SHEET 2D–1
CLASS 'I' RIP RAP
EST. 110 TONS
EST. 215 SY GFD

NO IMPACT TO
WETLAND FROM
R–5930A PROJECT

CLASS 'B' RIP RAP
EST. 5 TONS
EST. 14 SY GFD

CLASS 'B' RIP RAP
EST. 3 TONS
EST. 10 SY GFD
18" RCP–IV

LATERAL 2FT BASE DITCH
SEE DETAIL 4SHEET 2D–1
CLASS 'B' RIP RAP
EST. 68 TONS
EST. 140 SY GFD

74 x 37 x 3
1.5 inch Skimmer
with 1.500 inch
Orifice Diameter
10 ft. weir
ID 7.3

END CONSTRUCTION
–Y6– POT Sta. 15+39.00

15" HDPE
W/ELBOWS

OVERSIZED CB
USE TABLE ON
DETAIL 840.02
FOR 36" PIPE
18" RCP–V

ENVIRONMENTALLY SENSITIVE AREA
SEE PROJECT SPECIAL PROVISIONS

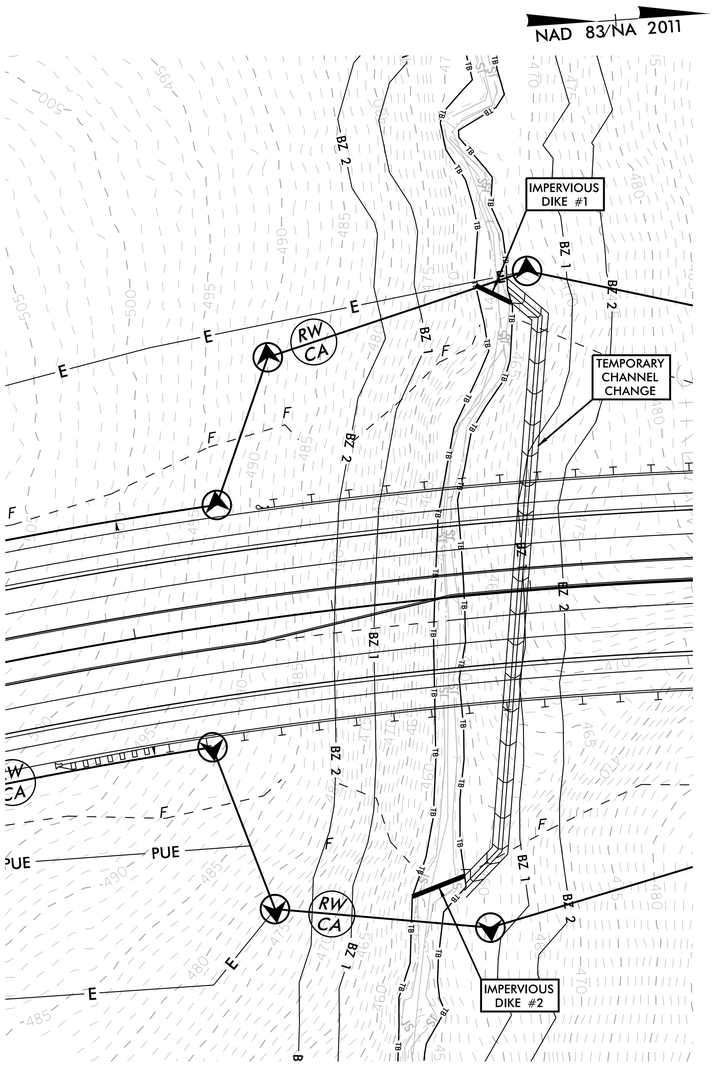
5/14/99

PROJECT REFERENCE NO.	SHEET NO.
R-5930A	EC-7A/CONST.7
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CULVERT CONSTRUCTION SEQUENCE STA. 68+70–L–

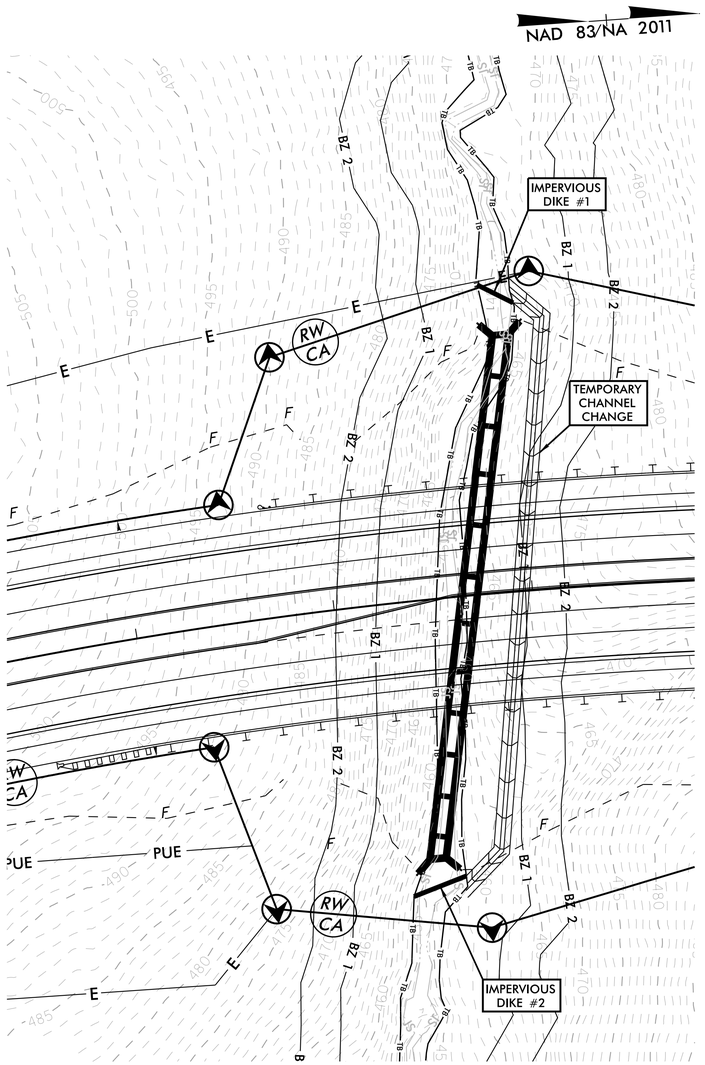
PHASE I

1.) UTILIZE SPECIAL STILLING BASIN(S) DURING CONSTRUCTION AS NEEDED TO DEWATER WORK SITE. (TYP.)
2.) CONSTRUCT TEMPORARY CHANNEL CHANGE WITH LINER (2 FT BASE, 1.5 FT DEEP, 2:1 SIDE SLOPES).
3.) CONSTRUCT IMPERVIOUS DIKES 1 AND 2 DIVERTING FLOW THROUGH TEMPORARY CHANNEL CHANGE.



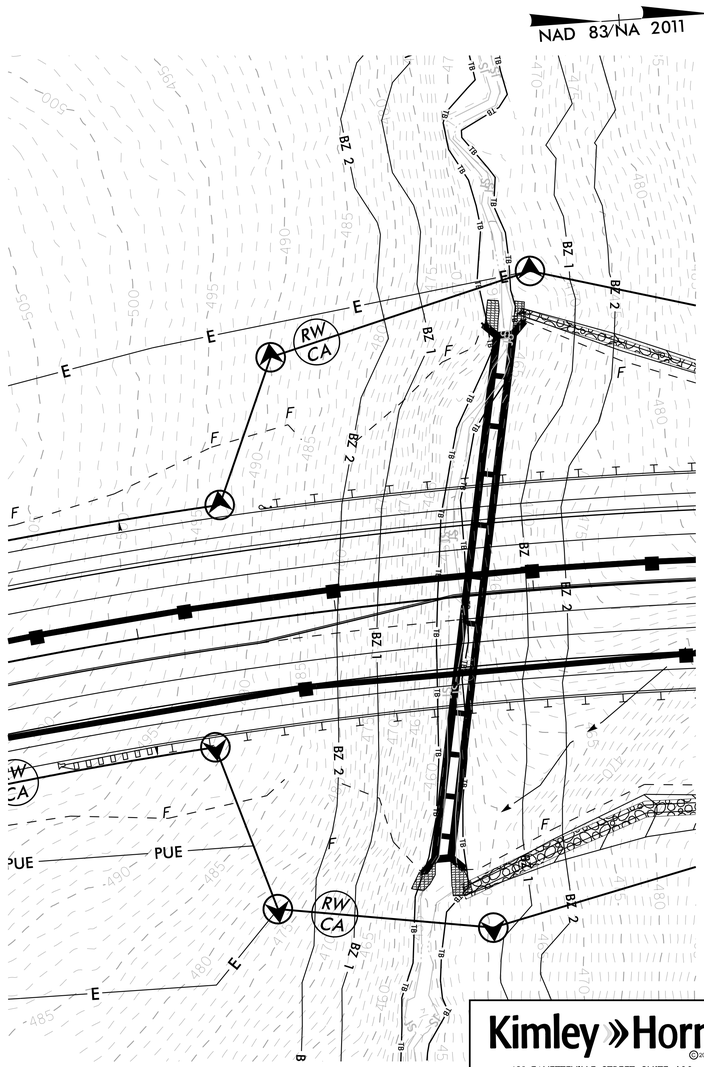
PHASE II

1.) CONSTRUCT PROPOSED 1 @ 7′ X 7′ RCBC, 1′ BURIED.
2.) ADJUST TEMPORARY CHANNEL CHANGE AS NECESSARY TO MAKE UPSTREAM AND DOWNSTREAM CHANNEL IMPROVEMENTS WITHIN EASEMENTS AND PLACE REQUIRED RIPRAP AND MATTING ON CHANNEL BANKS.



PHASE III

1.) REMOVE IMPERVIOUS DIKE 1 AND 2 AND REMOVE TEMPORARY CHANNEL CHANGE.
2.) REMOVE SPECIAL STILLING BASIN.
3.) STABILIZE DISTURBED AREA AND REMOVE ALL EROSION AND SEDIMENT CONTROL DEVICES AS DIRECTED.
4.) FINISH ROADWAY AND DRAINAGE CONSTRUCTION.



5/12/2023

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NOTE:
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE – B AND TEMPORARY ROCK SILT CHECKS TYPE – A AT DRAINAGE OUTLETS.

CLEARING AND GRUBBING
EROSION CONTROL FOR CONSTRUCTION SHEET 8

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RIGHT–OF–WAY REV.
CONST. REV.

PROJECT REFERENCE NO.	SHEET NO.
R–5930A	EC–8/CONST.8
R–5930 R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

5/14/99
REVISIONS

NAD 83 /NA 2011

33 x 66 x 3
1.5 inch Skimmer
with 1.250 inch
Orifice Diameter
8 ft. weir
ID 8.1

80+00

90+00

BEGIN CONSTRUCTION
TIE TO GRANT DRIVE
(BY OTHERS)
–Y7– POC Sta. 14+80.00

END CONSTRUCTION
–L– POT Sta. 87+58.57

END CONSTRUCTION
–Y7– POT Sta. 16+63.00

MATCHLINE –L– STA 77+50 (SEE SHEET 7)

CLASS 'I' RIP RAP
EST. 3 TONS
EST. 10 SY GFD

18" RCP–IV

Temporary Rock
Silt Check Type A
3.5 ft. weir height

RETAIN EXIST SYSTEM
INSTALLED BY OTHERS

REMOVE EXISTING 30" HDPE
INSTALLED BY OTHERS

15" RCP–IV

+41
60' LT

CLASS 'I' RIP RAP
EST. 15 TONS
EST. 30 SY GFD

36" HDPE w/ELBOWS

JB w/MH

36" RCP–IV

18" HDPE
W/ELBOWS

CB–E
CB–F
CB–G

36" RCP–IV

18" RCP–IV

18" RCP–V

TBDI

2GI

+62
60' RT

+22
60' RT

BDO

15" HDPE W/ELBOWS

REMOVE EXISTING 24" HDPE
INSTALLED BY OTHERS
15" RCP–V

TIE EXIST DITCH
TO PROPOSED
BASE DITCH

LATERAL 2FT BASE DITCH
SEE DETAIL 19/SHEET 2D–2
CLASS 'I' RIP RAP
EST. 80 TONS
EST. 160 SY GFD

LATERAL 4FT BASE DITCH
SEE DETAIL 3/SHEET 2D–1
CLASS 'I' RIP RAP
EST. 55 TONS
EST. 115 SY GFD

NCDOT HW
STD 838.01

BERM 'V' DITCH
SEE DETAIL 2/SHEET 2D–1

PDE
E
C
F
RW
CA

FINAL EROSION CONTROL FOR CONSTRUCTION SHEET 4

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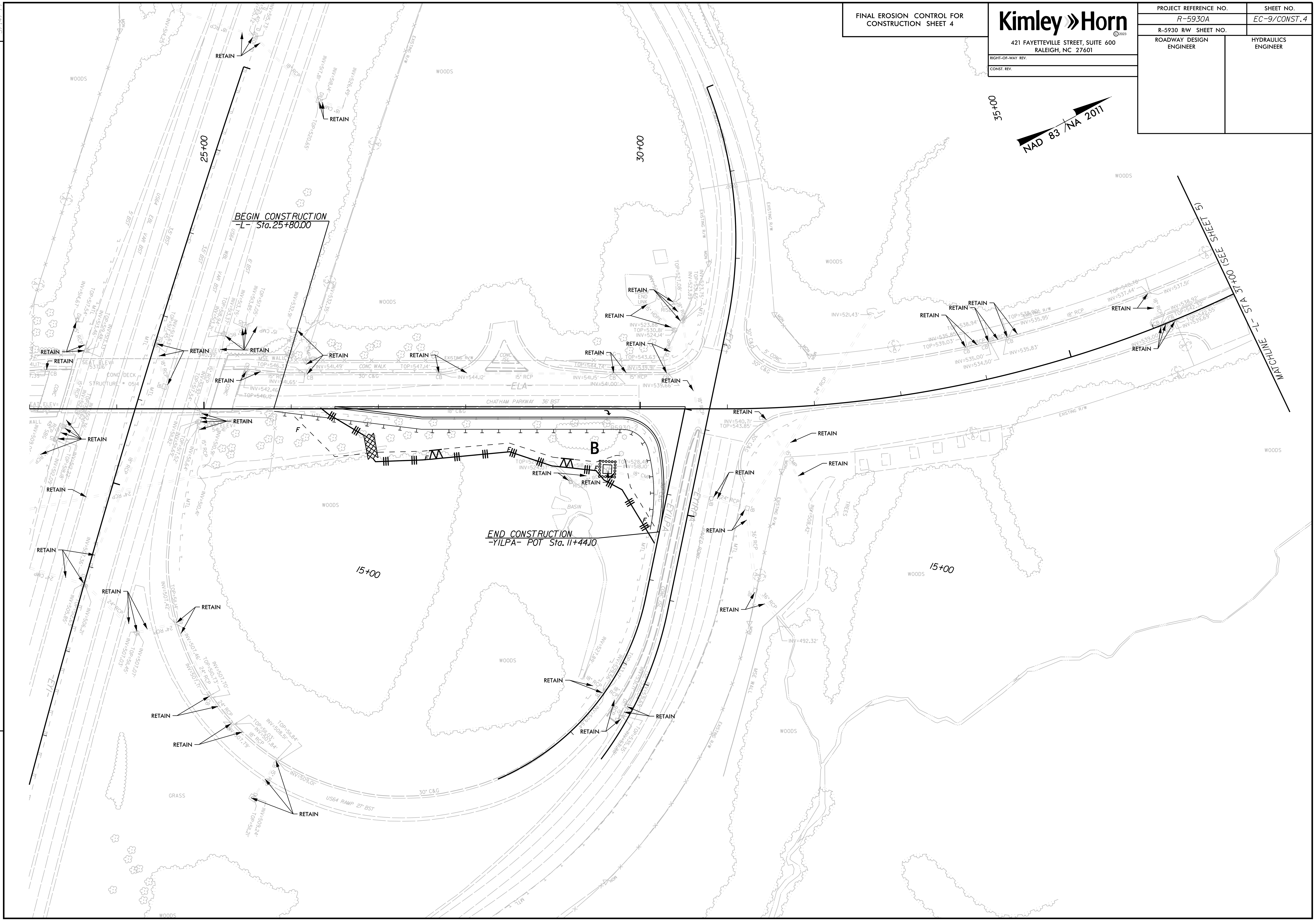
RALEIGH, NC 27601

RIGHT-OF-WAY REV.
CONST. REV.

PROJECT REFERENCE NO.	SHEET NO.
R-5930A	EC-9/CONST.4
R-5930 R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

REVISIONS



FINAL EROSION CONTROL FOR CONSTRUCTION SHEET 5

NAD 83 /NA 2011

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RIGHT-OF-WAY REV.

CONST. REV.

PROJECT REFERENCE NO.	SHEET NO.
R-5930A	EC-10/CONST.5
R-5930 R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

REVISIONS 5/14/99

MATCHLINE -L- STA 37+00 (SEE SHEET 4)

MATCHLINE -L- STA 50+50 (SEE SHEET 6)

BEGIN TIP PROJECT R-5930A
-L- Sta.42+00.00

END CONSTRUCTION
-Y2- POC Sta.17+83.50

BEGIN CONSTRUCTION
-Y2- POC Sta.15+94.93

BEGIN CONSTRUCTION
-Y3- POT Sta.13+10.00

46 x 92 x 3
2 inch Skimmer
with 1.75 inch
Orifice Diameter
16 ft. weir
ID 5.1

15+00 20+00 40+00 45+00 50+00

WOODS

15' SOIL & GR DR

10' SOIL DR

EXISTING 60' PRIVATE ACCESS EASEMENT

30' C&G

CHATHAM PARKWAY VAR BST

18' C&G

RETAIN

REMOVE

DUE

TBDI

BERM 'V' DITCH
SEE DETAIL 2/SHEET 2D-1

SPECIAL CUT DITCH
SEE DETAIL 7/SHEET 2D-1

BDC

18" HDPE W/ELBOWS

18" RCP-V

15" RCP-V

15" RCP-IV

18" RCP-IV

CB-G

CB-F

JB W/MH

CLASS 'B' RIP RAP
EST. 3 TONS
EST. 10 SY GFD

STANDARD 'V' DITCH
SEE DETAIL 5/SHEET 2D-2
S= 1.09%
EST 20 CY DDE

EXISTING
SLOPE EASEMENT
DB 2021PG 52
(SEE GENERAL NOTE # 7)

RW CA

PDE

BZ 1

BZ 2

FINAL EROSION CONTROL FOR CONSTRUCTION SHEET 6

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RIGHT-OF-WAY REV.
CONST. REV.

PROJECT REFERENCE NO.	SHEET NO.
R-5930A	EC-II/CONST.6
R-5930 R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

5/14/99
REVISIONS

NAD 83 /NA 2011

10+00
55+00
60+00

MATCHLINE -L- STA 50+50 (SEE SHEET 5)
MATCHLINE -L- STA 64+00 (SEE SHEET 7)

BEGIN CONSTRUCTION
-Y4- POC Sta. 13+73.00

END CONSTRUCTION
-Y4- POC Sta. 15+67.00

SPECIAL CUT DITCH
SEE DETAIL 7/SHEET 2D-1

BERM 'V' DITCH
SEE DETAIL 2/SHEET 2D-1

15" HDPE W/ELBOWS

SPECIAL LATERAL
2FT BASE DITCH
SEE DETAIL 8/SHEET 2D-1
CLASS 'B' RIP RAP
EST. 160 TONS
EST. 350 SY GFD

FALSE SUMP
SEE DETAIL 32
SHEET 2D-2

CLASS 'B' RIP RAP
EST. 3 TONS
EST. 10 SY GFD

WOODS

FINAL EROSION CONTROL FOR CONSTRUCTION SHEET 7

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RIGHT-OF-WAY REV.

CONST. REV.

NAD 83 /NA 2011

PROJECT REFERENCE NO.	SHEET NO.
R-5930A	EC-12/CONST.7
R-5930 R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

5/14/99

REVISIONS

36 x 18 x 3
1.5 inch Skimmer
with 0.625 inch
Orifice Diameter
4 ft. weir
ID 7.2

-L- Sta.68+70
7'x7' RCBC (1.0' BURIED)
(WxH)

BEGIN CONSTRUCTION
-Y5- POT Sta. 12+05.00

-L- Sta.67+92
12'x12' RCBC
(WxH)

-L- Sta.70+00
12'x12' RCBC
(WxH)

BEGIN CONSTRUCTION
-Y6- POT Sta. 13+21.00

INLET PROTECTION
EST. 14 TONS CLASS II RIP RAP
EST. 14 SY GFD
SEE DETAIL 25SHEET 2D-2

LATERAL 'V' DITCH
SEE DETAIL 9SHEET 2D-1
CLASS 'I' RIP RAP
EST. 102 TONS
EST. 195 SY GFD

CLASS 'B' RIP RAP
EST. 2 TONS
EST. 7 SY GFD

15" HDPE
W/ELBOWS

70+00

75+00

15+00

MATCHLINE -L- STA 64+00 (SEE SHEET 6)

MATCHLINE -L- STA 77+50 (SEE SHEET 8)

24" HDPE
w/ELBOWS

CLASS 'B' RIP RAP
EST. 5 TONS
EST. 14 SY GFD

Temporary Rock
Silt Check Type A
3.5 ft. weir height

CLASS 'B' RIP RAP
EST. 3 TONS
EST. 10 SY GFD

46 x 23 x 3
1.5 inch Skimmer
with 0.875 inch
Orifice Diameter
4 ft. weir
ID 7.1

OUTLET PROTECTION
EST. 14 TONS CLASS II RIP RAP
EST. 14 SY GFD
SEE DETAIL 26SHEET 2D-2

LATERAL 4FT BASE DITCH
SEE DETAIL 3SHEET 2D-1
CLASS 'I' RIP RAP
EST. 110 TONS
EST. 215 SY GFD

NO IMPACT TO
WETLAND FROM
R-5930A PROJECT

LATERAL 2FT BASE DITCH
SEE DETAIL 4SHEET 2D-1
CLASS 'B' RIP RAP
EST. 68 TONS
EST. 140 SY GFD

40 x 20 x 3
1.5 inch Skimmer
with 1.500 inch
Orifice Diameter
12 ft. weir
(See Tiered Skimmer
Basin Detail)
ID 7.4

END CONSTRUCTION
-Y6- POT Sta. 15+39.00

Modified Silt Basin
Type 'B'
40 x 20 x 3
12 ft. weir
(See Tiered Skimmer
Basin Detail)
ID 7.4

OVERSIZED CB
USE TABLE ON
DETAIL 840.02
FOR 36" PIPE

15" HDPE
W/ELBOWS

15" RCP-IV

15" RCP-V

18" RCP-IV

18" RCP-V

CB-F

CB-G

RW CA

PDE

PUE

TD

TBDI

2GI

FINAL EROSION CONTROL FOR CONSTRUCTION SHEET 8

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RALEIGH, NC 27601

RIGHT-OF-WAY REV.

CONST. REV.

PROJECT REFERENCE NO.	SHEET NO.
R-5930A	EC-13/CONST.8
R-5930 R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

NAD 83 /NA 2011

5/14/99

REVISIONS

MATCHLINE -L- STA 77+50 (SEE SHEET 7)

80+00

85+00

90+00

BEGIN CONSTRUCTION
TIE TO GRANT DRIVE
(BY OTHERS)
-Y7- POC Sta. 14+80.00

END CONSTRUCTION
-L- POT Sta. 87+58.57

END CONSTRUCTION
-Y7- POT Sta. 16+63.00

CLASS 'I' RIP RAP
EST. 3 TONS
EST. 10 SY GFD

18" RCP-IV

15" RCP-IV

RETAIN EXIST SYSTEM
INSTALLED BY OTHERS

REMOVE EXISTING 30" HDPE
INSTALLED BY OTHERS

18" HDPE
W/ELBOWS

36" RCP-IV

JB w/MH

CLASS 'I' RIP RAP
EST. 15 TONS
EST. 30 SY GFD

36" HDPE w/ELBOWS

CB-F

CB-G

CB-E

TBDI

+62
60' RT

+22
60' RT

20'

BDC

TIE EXIST DITCH
TO PROPOSED
BASE DITCH

LATERAL 2FT BASE DITCH
SEE DETAIL 19/SHEET 2D-2
CLASS 'I' RIP RAP
EST. 80 TONS
EST. 160 SY GFD

LATERAL 4FT BASE DITCH
SEE DETAIL 3/SHEET 2D-1
CLASS 'I' RIP RAP
EST. 55 TONS
EST. 115 SY GFD

NCDOT HW
STD 838.01

15" HDPE W/ELBOWS

REMOVE EXISTING 24" HDPE
INSTALLED BY OTHERS
15"
RCP-V

BERM 'V' DITCH
SEE DETAIL 2/SHEET 2D-1